

REMARKS

This is intended as a full and complete response to the Office Action dated June 7, 2006, having a shortened statutory period for response set to expire on September 7, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-34 were pending in the application. Claims 1, 8, 10, 11, 15-30, and 32 have been amended. Claims 13, 14 and 31 have been cancelled. New claim 35 has been added to recite aspects of the invention. Applicants submit that the amendments and new claim do not introduce new matter.

Claim Objections

Claims 1 and 15 are objected to because of formalities. In particular, claim 1 and 15 are objected to because the Examiner believes the recitation of "whereby" should be changed to "includes" or "wherein". Respectfully, the Examiner errs. "Whereby" is a commonly used claim term to recite the logical outcome of a premise. In this case, the "whereby" clause defines a deterministic step as one generating identical output for a given input in repeated executions of the step on particular data. Accordingly, the recitation "whereby" is appropriate. In fact, changing "whereby" to "includes" or "wherein" would introduce ambiguity to the claim. The Examiner is directed to MPEP §2111.04 for a discussion of "whereby" clauses. Applicants respectfully request that the objection be withdrawn.

Claim Rejections - 35 U.S.C. § 101

Claims 1, 10, 15-28, and 31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Where appropriate, Applicants have made amendments. However, regarding the Examiner's rejection of the word "for" in claims 1, 10 and 29-32 the Applicants respectfully traverse the rejection. The effect of preambular language is discussed in

MPEP 2111.02. No prohibition of "for" is provided. Further, Applicants are aware of absolutely no case law or portion of the MPEP that supports the conclusion arrived at by the Examiner that the recitation of the word "for" in the preamble renders the claim "as a series of nonfunctional descriptive material/data without any functional relation with each other". To the contrary, the particular format used by the Applicants is a long-established and recognized claim format. Furthermore, it is not clear what distinction the Examiner draws between the rejected claims and claim 32, which is not rejected despite the recitation of "for" in the preamble.

While Applicants believe the present rejection has no merit, Applicants have nevertheless amended the claims in a non-limiting manner in an effort to move prosecution forward. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim Rejections - 35 U.S.C. § 112

Claims 1, 8, 22, and 31-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the Examiner states that the limitation "a step" is not defined and has multiple occurrences throughout the claims. The Examiner further asserts that it is not clear whether the recited step is the same step or one of multiple steps changing over time. Respectfully, this rejection is simply untenable. Claims are invariably replete with multiple occurrences of a given term or phrase. This fact, in and of itself, is simply not objectionable absent a violation of antecedent basis requirements. In this case, claim 1 provides antecedent basis for "a step" at line 7, and thereafter recitations of "the step" are clearly references to the same step introduced at line 7 of claim 1. There is simply no ambiguity. References to different steps, either in function or in time, are clearly distinguished by appropriate adjectives. For example, claim 2 recites "a next sequential step". Accordingly, proper antecedent basis has been preserved. Applicants therefore request that the rejection be withdrawn.

Regarding claims 8 and 22, Applicants have made an appropriate amendment.

Claim 31 has been canceled, thereby obviating the rejection.

The Examiner rejects claims 32-34 on the basis that it is unclear to the Examiner what a "functional module" is and how it relates to the invention. Applicants respectfully traverse the rejection. The claims themselves define functional modules. Specifically, claim 32 recites that the functional modules are parts of an application, and further recites that the functional modules are executables: "executing a plurality of functional modules from within an application"... "used to execute the plurality of functional modules". The claim further recites that the functional modules receive input ("receiving current input for execution of at least one of the functional modules") and that the functional modules may exhibit deterministic behavior of "whereby the at least one functional module generates identical output for given input in repeated executions of the at least one functional module". Accordingly, Applicants respectfully submit that there is simply no basis for suggesting that the nature of a "functional module" is unclear.

Claim Rejections - 35 U.S.C. § 102

Claims 1-34 are rejected under 35 U.S.C. 102(e) as being anticipated by *Li* (US 6,748,386 B1).

Applicants respectfully traverse this rejection.

The Examiner, citing to *Li* at column 6, lines 55-56 and column 7, lines 55-61, states that *Li* teaches "receiving current input for execution of a step of the workflow on relevant data of the database, wherein the step has been previously executed on the relevant data using previous identical input to the current input and wherein the previous execution of the step produced previous output".

As an initial matter, *Li* is not directed to "workflow". Workflow is a well-defined term in which a plurality of components, or modules, cooperatively perform predefined operations to provide a result. Each workflow component performs a predefined transformative operation (step) on some input and produces corresponding output. The

workflow defines a particular order in which the components are invoked, and the output of one workflow component is provided as input to another workflow component. In this way, independent functional modules having defined interfaces cooperate with one another (on an input/output basis) to achieve a result. This definition of workflow is well-known. See, e.g., Wikipedia (keyword “workflow”); see also, present application at, e.g., paragraphs 0060-0062.

While “workflow” is sufficiently well-defined in the art, Applicants have made additional amendments to make the definition of workflow explicit in the claims. Since these amendments merely make explicit what was already implicit, the amendments are non-narrowing. Also, while the amendments defining workflow are made (in at least some of the claims) to the preambles, it is noted that “the workflow” is recited in the respective bodies of the claims and therefore relate back to the definitional limitations in the preambles. The limitations added by way of amendment should therefore be given patentable weight.

In *Li*, the input (queries 68 or requests 72) referred to by the Examiner does not invoke a workflow. Rather, the queries 68 and requests 72 are merely requests to information directed to different sources, i.e. the DBMS 76 and the file system and network 74, respectively. See, *Li* at col. 7, lines 57-61.

Further, *Li* does not teach “determining whether the step is deterministic, whereby the step generates identical output for given input in repeated executions of the step on the relevant data”. In this regard, the Examiner cites column 7, lines 54-61 and argues that *Li* “the cached results would not be retrieved if the query wasn't the same”. Respectfully, this argument fails because, if the “query” of *Li* is the claimed “given input” and the “cached results” of *Li* is the claimed “identical output”, then it follows that *Li* fails to disclose the claimed “step [that] generates [the] identical output” and, more particularly, fails to disclose “determining whether the step is deterministic”. Thus, in *Li*, retrieving cached query results without having to execute a query or request does not involve determining whether a particular executable in a workflow is deterministic. Rather, retrieving cached query results in *Li* merely requires identifying that the particular query results being requested are available in a cache. Put another

way, even putting aside the lack of a teaching of workflow, *Li* does not teach returning cached query results only upon determining that the executable that operates on the query would return the same results. Rather, if the query result is in the cache, and is valid, it is returned. There is simply no qualification of the executable that operates on the query as a condition to returning the query result.

Claims 10, 15, 24, 29, 30 and 32 have similar limitations and therefore are allowable for all or some of the reasons given above.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

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